

**Committee of Experts on the Transport of Dangerous Goods
and on the Globally Harmonized System of Classification
and Labelling of Chemicals**

Sub-Committee of Experts on the Transport of Dangerous Goods

30 June 2016

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Geneva, 27 June – 6 July 2016

Item 4 (d) of the provisional agenda

Electric storage systems: miscellaneous

**UN Informal Meeting on Lithium Batteries – 2015-2016,
3rd Session, 30 March – 1 April 2016 – Bordeaux,
France**

**Modified table option 1 presented in the proposal of the
Informal working group (Working Paper 46/proposal 3)**

11. Introduce the following new paragraph at the end of 38.3.3

“38.3.3.1 The provisions of 38.3.2.1 and 38.3.3 are summarized in the following tables:

Table 38.3.2: Summary table of [required/applicable] tests for primary cells and batteries

| Primary cells and batteries | | | | | | | | | | |
|--|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | T.1 | T.2 | T.3 | T.4 | T.5 | T.6 | T.7 | T.8 | Sum |
| Cells not transported separately | undischarged state | | | | | | 5 | | | 20 |
| | fully discharged state | | | | | | 5 | | 10 | |
| Cells | undischarged state | 10 | | | | | 5 | | | 40 |
| | fully discharged state | 10 | | | | | 5 | | 10 | |
| Single cell batteries ^a | undischarged state | 10 | | | | | 5 | | | 40 |
| | fully discharged state | 10 | | | | | 5 | | 10 | |
| Small batteries | undischarged state | 4 | | | | | | | | 8 |
| | fully discharged state | 4 | | | | | | | | |
| Large Batteries | undischarged state | 4 | | | | | | | | 8 |
| | fully discharged state | 4 | | | | | | | | |
| Batteries assembled with tested batteries ≤ 500 g | undischarged state | | | 1 | | | | | | 1 |
| Batteries assembled with tested batteries > 500 g ^b | | | | | | | | | | 0 |

^a Except for the T.7 Overcharge test, a single cell battery containing one tested cell does not require testing unless a change in cell design could result in the failure of any test.

^b If it is equipped with a system capable of monitoring the assembled battery and preventing short circuits, or over discharge between the batteries in the assembled battery and any overheat or overcharge of the assembled battery.

Table 38.3.3: Summary table of [required/applicable] tests for rechargeable cells and batteries

| Rechargeable cells and batteries | | | | | | | | | | |
|--|-------------------------------------|-----|-----|-----|-----|-----|-----|------------------|-----|-----|
| | | T.1 | T.2 | T.3 | T.4 | T.5 | T.6 | T.7 ^a | T.8 | Sum |
| Cells not transported separately from a battery | first cycle, 50% charged state | | | | | | 5 | | | 25 |
| | first cycle, fully discharged state | | | | | | | | 10 | |
| | 50th cycle, fully discharged state | | | | | | | | 10 | |
| Cells | first cycle, fully charged state | 10 | | | | | | | | 35 |
| | first cycle, 50% charged state | | | | | | 5 | | | |
| | first cycle, fully discharged state | | | | | | | | 10 | |
| | 50th cycle, fully discharged state | | | | | | | | 10 | |
| Single cell batteries ^b | first cycle, fully charged state | 10 | | | | | | 4 | | 43 |
| | first cycle, 50% charged state | | | | | | 5 | | | |
| | 50th cycle, fully charged state | | | | | | | 4 | | |
| | first cycle, fully discharged state | | | | | | | | 10 | |
| | 50th cycle, fully discharged state | | | | | | | | 10 | |
| Small batteries | first cycle, fully charged state | 4 | | | | | | 4 | | 16 |
| | 50th cycle, fully charged state | 4 | | | | | | 4 | | |
| Large batteries | first cycle, fully charged state | 2 | | | | | | 2 | | 8 |
| | 25th cycle, fully charged state | 2 | | | | | | 2 | | |
| Batteries assembled with tested batteries ≤ 6,200 Wh or ≤ 500g Li | fully charged state | | | 1 | | | | 1 | | 2 |
| Batteries assembled with tested batteries > 6,200 Wh or > 500g Li ^c | | | | | | | | | | 0 |

^a Batteries or single cell batteries not equipped with battery overcharge protection that are designed for use only as a component in another battery or in equipment, which affords such protection, are not subject to the requirements of this test;

^b Except for the T.7 Overcharge test, a single cell battery containing one tested cell does not require testing unless a change in cell design could result in the failure of any test;

^c If it is equipped with a system capable of monitoring the assembled battery and preventing short circuits, or over discharge between the batteries in the assembled battery and any overheat or overcharge of the assembled battery.”